

**STUDY ON RISING TREND OF CAESAREAN DELIVERY IN BANGLADESH DURING
LAST FEW DECADES****Dr. Haripada Debnath^{1*}, Dr. Zahirun Nessa², Dr. Nargis Sultana³ and Dr. Begum Shaira Sharifa⁴**¹Assistant Professor (Gynae & Obs), Shaheed Syed Nazrul Islam Medical College, Kishoreganj, Bangladesh.²Assistant Professor (Gynae & Obs), Shaheed Syed Nazrul Islam Medical College, Kishoreganj, Bangladesh.³Assistant Professor (Gynae & Obs), National Institute of Cancer Research & Hospital Mohakhali, Dhaka, Bangladesh.⁴Assistant Professor (Gynae & Obs), National Institute of Cancer Research & Hospital Mohakhali, Dhaka, Bangladesh.***Corresponding Author: Dr. Haripada Debnath**

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ABSTRACT

Background: During last 1990 decade there were death of huge number of pregnant mother due to pregnancy related multiple complications like post partum and antepartum hemorrhage, abortion specially septic, preeclampsia, Eclampsia, Obstructed labour, Rupture Uterus and Septicemia etc. On 1990 to achieve our Millenium Development Goal (MDG) we had to reduce maternal mortality Rate (MMR) from 574 per 100000 Live Birth at 1990 to 480 per 100000 Live Birth at 2000 and 194 per 100000 Live Birth at 2010. For that reason Bangladesh Government initiated a Emergency Obstetric Care (EOC) Project which was Implemented In Bangladesh at Union sub centre and community clinic, Upazilla Health Complex, District Sadar Hospital, Maternity Clinic and Medical college hospital. As a Result Caesarean section delivery was increased from 2 % at 1993 to 6 % at 2004 were found on Survey conducted by Demographic and Health Survey, Bangladesh. Considering safe delivery and reducing maternal and Infant mortality Caesarean section facilities is increasing day by day at Upazila and Distract level in both Government Hospital and Non-Government Clinic. Caesarean section delivery was increased from 30 % at 2000 to 60 % at 2014 of total institutional delivery: **Objective:** My study aimed to assess the indications and find out the causes of rising trend of Caesarean section over last 7 years from 2012 to 2018 and find out the way to decrease this rising trend: **Method:** It was a retrospective observational study of pregnant women admitted at Upazilla Health Complex Bhairab Kishoreganj from 2012 to 2018 for their delivery either Vaginal or Caesarean section. There were comparative study of Vaginal and Caesarean Delivery and different indications of Caesarean section in these years. **Result:** My study on pregnant women admitted at Upazilla Health Complex Bhairab Kishoreganj for delivery either Vaginal or Caesarean Section in the year of 2012 to 2018. My Study Shows Vaginal delivery is 53.77% of total delivery at 2012 which is gradually decreasing to 45.09 % at 2016. Afterwards Vaginal delivery is increasing up to 52.06% at 2017 and 50.03% at 2018. On the other hand Caesarean section is increasing from 46.13% at 2012 to 54.10 % at 2016. of total delivery at Upazilla Health Complex. It does not Indicate the rate of Caesarean section on over all delivery ocured in Bhairab Upazila and surroundings but there is rising trend of Caesarean section. There were variations of different indications of Caesarean section at between 2012 and 2018. Caesarean section were done for previous caesarean section was 34.67% at 2012 and 57.01 % at 2018. Caesarean section were done for maternal request was 17.47% at 2012 and 7.53 % at 2018. Day by day maternal request for Caesarean section was decreasing because of increasing patients morbidity and treatment cost whereas Caesarean section is increasing for previous Caesarean section because of safe mother, safe newborn child and lack of intensive care and facilities for post Caesarean Vaginal delivery.

KEYWORDS: Caesarean section, Vaginal Delivery, Maternal mortality, Maternal Morbidity.**INTRODUCTION**

In this study there were large number of pregnant women admitted at Upazila Health Complex Bhairab from the year 2012 to 2018. These patients delivered their baby either per Vaginally or by Caesarean Section. From the comparative study of Vaginal delivery and Caesarean section from 2012 to 2018 and comparative study of different indications of Caesarean section between 2012 and 2018, we found that Caesarean Section was

increasing gradually up to 2016 and after wards Caesarean section rate almost static within 47% to 50% of total delivery.^[3,4] Initially maternal request for Caesarean section were increased upto 17.47% at 2012 and there after it was decreasing because of increasing patient morbidity and treatment cost.^[2,14,15] We had to reduce Maternal Mortality Rate (MMR) up to 194 from 434 per 100000 live birth by developing Caesarean Section facilities at Upazila and District Sadar Hospital

and Non-Government Clinic, and trained Health Care Provider for achieving healthy mother and healthy baby.^[1] Now the number of Caesarean section is increasing because of repeat Caesarean Section.

METHODOLOGY

It is a retrospective study on admitted pregnant women at Upazila Health Complex for their safe delivery. I conduct the delivery of huge number of pregnant women

from 2012 to 2018 either by vaginal or Caesarean section. Because of comprehensive EOC services including Caesarean section Facility was available, we Prefer Caesarean section for safe mother and new born baby initially to reduce MMR from 434 per 100000 live birth at 2000 to 194 per 100000 live birth at 2010. From 2010 to 2016 Maternal Mortality Rate is almost static. Latest Survey show Maternal Mortality Rate (MMR) is 172 per 100000 Live Birth at 2020.

RESULT

Table 1: Comparisons of vaginal delivery and Caesarean section of admitted pregnant women from 2012 to 2018.

Year	Number of admitted patients	Vaginal Delivery		Caesarean section		Total Delivery
		Number	Percentage	Number	Percentage	
2012	2092	869	53.87%	744	46.13%	1613
2013	1961	782	50.87%	755	49.13%	1537
2014	2081	782	50.12%	778	49.88%	1560
2015	2172	762	45.44%	915	54.56%	1677
2016	1893	683	45.90%	805	54.10%	1488
2017	1994	821	52.06%	756	47.94%	1577
2018	1982	771	50.03%	770	49.97%	1541

Table 2: Different Indication of Caesarean section on 2012.

2012	Prolong labour	previous C/S	BOH	Obstructed Labor	Post dated pregnancy	PROM	Others	CPD	Breech Presentation	Pre eclampsia	Maternal Request
Number	80	258	37	15	34	35	33	58	45	19	130
Percentage	10.75	34.67	4.97	2.01	4.56	4.70	4.43	7.79	6.04	2.55	17.47

Table3: Different Indication of Caesarean section on 2018.

2018	Prolong labor	Previous C/S	BOH	Obstructed Labour	Post dated Pregnancy	PROM	Others	CPD	Breech Presentation	Pre eclampsia	Maternal Request
Number	68	439	31	12	32	29	28	36	30	7	58
Percentage	8.83	57.01	4.02	1.55	4.15	3.76	3.63	4.67	3.89	0.9	7.53

Table 4: Comparative Study of Different Indications of Caesarean section between 2012 and 2018.

Indications	Number - 2012	Number - 2018	Percentage - 2012	Percentage-2018
Prolong Labour	80	68	10.75%	8.83%
Previous C/S	258	439	34.67%	57.01%
BOH	37	31	4.97%	4.02%
Obstructed Labour	15	12	2.01%	1.55%
Postdated Pregnancy	34	32	4.56%	4.15%
PROM	35	29	4.70%	3.76%
Others	33	28	4.43%	3.63%
CPD	58	36	7.79%	4.67%
Breech Presentation	45	30	6.04%	3.89%
Pre eclampsia	19	7	2.55%	0.9%
Maternal Request	130	58	17.47%	7.53%

**** Others Causes means:** - Fetal distress, Eclampsia, Antepartum Haemorrhage, Placenta Previa, abruptio Placenta, Hand Prolapse, H/O Perineorrhaphy.

DISCUSSION

In my Studies there were Caesarean section delivery rate from 46.13% at 2012 to 54.10% at 2016 of all institutional delivery.^[5] There after Caesarean section delivery rate is almost static and decreasing.^[6,7] Among different indications of Caesarean section 17.47% was

for maternal request at 2012 which was decreased to 7.53% at 2018. Caesarean section were done for previous Caesarean section was 34.67% at 2012 which is increased up to 57.01% at 2018.^[8,9] Day by day Caesarean section delivery is increasing because of repeat Caesarean section but patients desire for Caesarean section in gradually decreasing in Bangladesh Caesarean section rate was 3% at 2002 and increased up to 24% at 2014.^[10] Demographic and Health survey show institutional delivery was increased up to 4 times and Caesarean section delivery was increased Up to 8 folds from 2000 to 2014.^[11] At institutional delivery (The Govt. and Non Govt. Hospital) Caesarean section delivery was increased from 30 % at 2000 to 63% at 2014. This Survey also Show Health Care Expenditure that was treatment cost of vaginal delivery is 3565 tk. and Caesarean section is 22085tk. High Caesarean section delivery and negative Health outcome associated with the procedure on mother and child birth causes economic burden on family.^[12] So it is very important to control Caesarean section delivery by Health care Provider by Introducing litigation and spacial guideline in Health Policy. To achieve MDG (Millennium Development Goal) Maternal Mortality Rate was reduced from 434 per 100000 live Birth at 2000 to 194 per 100000 Live birth at 2010. This was achieved by developing maternal Health care facilities, increasing EOC services such Antenatal, Intranatal and Postnatal care at Upazila Health Complex and District Sadar Hospital level, increasing social awareness about maternal and Child Health care. Now it is our Challenge to achieve Sustainable Development Goal.^[13] (SDG) Maternal Mortality Rate has to be reduced to 100 per 100000 Live Birth by 2025 and 70 per 100000 Live Birth by 2030. Bangladesh Maternal Mortality and Health service Survey (BMMS) at 2016 Show Maternal Mortality Rate 196 per 100000 Live Birth is almost static at between 2010 and 2016 but Institutional Delivery is increasing from 23% at 2010 to 47% at 2016.^[16] Latest survey show Maternal Mortality Rate is 172 per 100000 live Birth at 2020.^[17] To achieve the target of MMR for SDG we have to increase EOC services at all Health Facilities, Identify the Risk Factors and Treatment accordingly, ensure quality services by qualified specialist Health Care Provider around 24 hours, well equipped facilities with multi disciplinary expert to make Positive attitude of pregnant women and their relatives on our EOC services regarding to achieve healthy mother and healthy child.^[18]

CONCLUSION

Since 2000 Caesarean section was incensing to reduce Maternal Mortality Rate (MMR). Initially there was increasing Caesarean section for Maternal Request for safety mother and new born Child up to 2012 and thereafter Maternal Request for Caesarean Delivery was gradually decreasing because of increasing maternal and neonatal morbidity and economical burden on Family. Now a days Caesarean delivery rate is increased because of repeat Caesarean section. From 2010 to 2016 Maternal

Mortality Rate Show Static but Institutional Delivery is increasing. So to achieve Sustainable Development Goal. (SDG) by 2030 Maternal Mortality Rate is to be reduced to 100 per 100000 Live Birth on 2025 and 70 per 100000 Live Birth on 2030 by introducing litigation and special guide lines in Health Policy like 24 hours quality obstetrics health care services at well equipped facilities provided by qualified specialist health care provider and increasing social awareness to achieve healthy mother and healthy child.

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